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Cultural Resources Services Report for Archaeological Survey and Monitoring

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Report for Archaeological Survey and Monitoring

Salado Wastewater Line Project
Salado, Bell County, Texas

Final Report – Public Version

December 31, 2019

Terracon Project No. 90167360

Antiquities Permit No. 7736

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Salado, Texas

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ABSTRACT

The Village of Salado has proposed the Salado Wastewater Line project where wastewater lines and associated lift stations will be constructed in Salado, Bell County, Texas. The Village of Salado retained Terracon Consultants, Inc. to conduct a systematic, intensive pedestrian survey of the approximately 11.36-acre project area. Because the Village of Salado, a political subdivision of the State of Texas, sponsored the project, the proposed undertaking is subject to compliance with the Antiquities Code of Texas and oversight from the Texas Historical Commission (THC). Funding for the project would come in part from the Economic Development Administration. Therefore, the undertaking triggers Section 106 of the National Historic Preservation Act (Code of Federal Regulations, Title 36, Part 800). In addition, US Army Corps of Engineers Nationwide Permit 12 for Utility Lines (SWF-2015-00517) is being utilized for this project. The cultural resources survey was carried out under Texas Antiquities Permit Number 7736, issued to David Yelacic, MS, RPA, Principal Investigator. Fieldwork was carried out by David Yelacic with assistance from Caitlin Gulihur and Juan Morlock. Records from the project will be curated at the Center for Archaeological Studies at Texas State University.

The approximate 16,500-linear-foot by 30-foot-wide alignment (11.36 acres) was considered the Area of Potential Effect (APE). Survey of the APE consisted of systematic pedestrian coverage, including discretionary shovel tests and backhoe trenching. The survey work was carried out on August 5 and 6, 2016. In coordination with staff from the THC, the study area was focused down to archaeologically sensitive areas, areas with deep impacts, and a previously unsurveyed (and undisturbed) portion of alignment to the east. Three backhoe trenches and four shovel tests were excavated. One newly discovered archeological site, 41BL1401, consisting of prehistoric lithics and historic-age materials, was recorded. The locations of site 41BL1401 and Backhoe Trench 2 were monitored during construction; limited cultural materials in disturbed contexts were observed at each location. No features or discrete archaeological deposits were observed. Site 41BL1401 is recommended as not eligible within the project right-of-way (ROW) for listing on the National Register of Historic Places (NRHP) or for designation as a State Antiquities Landmark (SAL).

Given the absence of eligible historic properties within the APE, it is Terracon's recommendation that the proposed project be allowed to proceed as currently designed. In the unlikely event that human remains or cultural features are discovered during remaining construction activities, construction should cease in the vicinity of the remains and Terracon, the Texas Historical Commission's Archeology Division, or other proper authorities should be contacted.

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Terracon Project No. 90167360
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1.0 Introduction

This report presents the results of intensive pedestrian survey, backhoe trenching, and construction monitoring of the proposed Salado Wastewater Line project in Salado, Bell County, Texas.

Overall, the proposed wastewater line includes approximately 16,500 linear feet of pipeline that would be installed along West Village Road, Church Street, Main Street, and Royal Street (Appendix A, Exhibit 1). The proposed line would be placed into existing and newly acquired easements and right-of-way (ROW), and the proposed installation methods include open trenching as well as horizontal directional drilling. Directional drilling would be used to install the proposed line beneath streams and Interstate Highway (IH) 35. Funding for the project would come in part from the Economic Development Administration. Therefore, the undertaking triggers Section 106 of the National Historic Preservation Act (Code of Federal Regulations, Title 36, Part 800) and the Antiquities Code of Texas (Texas Natural Resource Code, Title 9, Chapter 191), both of which require review and comment from the Texas Historical Commission. In addition, US Army Corps of Engineers Nationwide Permit 12 for Utility Lines (SWF-2015-00517) is being utilized for this project. Corps archaeologists also have the opportunity to review and comment on the projects effects on historic properties.

Work was performed under Texas Antiquities Permit Number 7736, issued to David Yelacic, MS, RPA, Principal Investigator, and in adherence to Title 13, Chapter 26 of the Texas Administrative Code. Work was performed by David Yelacic, Caitlin Gulihur, and Juan Morlock. Intensive pedestrian survey, including shovel testing and backhoe trenching, was conducted on August 5 and 6, 2016. Construction monitoring was conducted on April 24-26, 2018 and September 21 and 27, 2018.

Abiding by Standards set forth by the Council of Texas Archeologists (CTA), project information, including the site setting, area of potential effect (APE), methods, records review, and survey results are presented below and followed by recommendations and conclusions. Report was authored by David Yelacic, Caitlin Gulihur, and Ann M. Scott.

2.0 Area of Potential Effect

Informed by a coordination meeting involving cultural resources staff from Terracon, the Texas Historical Commission (THC) project reviewers (Tiffany Osburn, Michael Robb, and Mark Denton), Village of Salado representative, and project engineers from Kasberg, Patrick & Associates, LP on June 2, 2016, we understand the area of potential effect (APE) for direct impacts to be the proposed 16,500-foot alignment as shown in Appendix A, Exhibit 1. Within the APE, the archaeological study area includes bore pits for horizontal directional drilling across Interstate Highway 35, bore pits for horizontal directional drilling across Salado Creek, lift stations along Royal Street and Church Street, and an approximately 700-meter stretch of undeveloped right-of-way at the eastern end of the proposed alignment. The width of the APE is generally 30 feet.

Terracon understands that the remainder of the proposed wastewater line would likely not have lasting effects on sensitive cultural resources, if they were in, or adjacent to, the footprint of the project. Terracon, therefore, recommends that installation of the proposed line be allowed to proceed as planned in these areas not identified as sensitive.

3.0 Project Setting

In general terms, the project area is located at the transition between two large-scale biotic provinces or biomes, the Edwards Plateau and the Blackland Prairie/Gulf Coastal Plains (Griffith et al. 2004). Each of these biomes is characterized by a distinct set of physical and biological properties, and the transitional zone is known to have endemic plant and animal communities as well (Blair 1950). The project area traverses uplands as well as the valley of Salado Creek. Bedrock geology of the project area is mapped as Edwards and Comanche Peak Limestones, undivided (Kec) (Barnes 1974). Soils of the overall project area include Frio silty clay (Fs), Purves Association (PVD), Crawford silty clay (CrB), Speck association (SPD), Speck soils (SsB), Purves silty clay (PrB), Lewisville silty clay (LeB), Bosque clay loam (Bf), Denton silty clay (DeB) (Huckabee et al. 1977). Many of these soil series are characteristic of upland settings and typically shallow. Frio and Bosque soils are outliers found draping alluvial terraces in proximity to Salado Creek, and therefore, they inherently have increased potential for containing buried, intact archaeological deposits.

4.0 Cultural History

Generally, the cultural chronology of Central Texas can be divided into three periods: prehistoric, protohistoric, and historic. The protohistoric effectively marks the boundary between the prehistoric and historic periods and is characterized by the initial introduction of Europeans into the western hemisphere. The following description of Central Texas' cultural history is a gross compilation of a vast suite of data and interpretations (cf. Collins 1995, 2004).

4.1 Prehistoric

The prehistoric people of Central Texas were primarily hunter-gatherers. Through the last 75-plus years of archaeological research in the region, identifiable and repeated patterns in artifact

assemblages have indicated major shifts in subsistence strategies and technology through time. As a result, the prehistoric period now has three subdivisions: Paleoindian, Archaic, and Late Prehistoric.

The Paleoindian period (ca. 12,500-8800 years ago) includes the earliest human occupation of North America, which extends back into the late Pleistocene. During this time, people hunted large game, but they generally had a broad diet. This included plant foods, small game, in addition to megafauna that went extinct with the close of the Pleistocene (i.e., mammoth, mastodon, bison, horse, camel, etc.). Technological traditions further subdivide the Paleoindian period into Early and Late.

The Archaic period (ca. 8800-1250 years ago) of Central Texas was the longest period in prehistory, and it is generally marked by the introduction of hot rock cooking in addition to the proliferation of a wide variety of diagnostic projectile points. Cooking with fire-heated rocks developed with increased reliance on plant foods, which may have been a response to diminishing game resources and ultimately climatic change or variation. This is not to say that human agency did not play an important role in the shift of economic and subsistence strategies. The Archaic period is subdivided into Early-, Middle-, and Late-Archaic periods, each with a slight variation in response to cultural shifts and ambient conditions.

The Late Prehistoric (ca. 1250-250 years ago) was a relatively brief period, but it was marked by a shift in weapon technology: the introduction of the bow-and-arrow. Like the Archaic, the Late Prehistoric people utilized hot rock cooking to process plants to edible forms. There also appeared to be increasing contact among groups, which resulted in increased trade of materials and evident competition over resources.

4.2 Protohistoric and Historic

Spanish Entradas (expeditions) mark the onset of European influence in the New World. These explorations effectively scouted the new land and resulted in the settlement and establishment of missions spread throughout what has become northern Mexico and Texas. The Spanish entered into what is now Texas along the *El Camino Real de los Texas*. During this time, European populations and influence steadily increased as native populations steadily diminished.

The area which would become Bell County was first settled in the 1830s. The county was formed in 1850 with Belton, then called Nolanville, as the county seat. The current boundaries of Bell County were established in 1860 (Connor and Odintz 2016). In the 1850s and 1860s, the economy of the county was largely focused on agriculture, mostly raising livestock such as cattle and sheep, although wheat, corn, and later cotton were also grown. Farming and ranching is still a major economic force in Bell County. During World War II, Fort Hood was established in the western part of the county. The fort, which is still in use today, greatly contributed to economic and population growth (Connor and Odintz 2016). Manufacturing is also an important part of the contemporary economy. As of 2014, the population of Bell County was roughly 329,000, with Killeen (138,000) as the largest city.

Located around Salado Creek, the location of the Village of Salado hosted various Native American groups for thousands of years before the first permanent Anglo settlers in the 1850s. In 1852, a post office, and in 1859, town lots were organized to be sold (Silverthorne 2010). The population of Salado increased from the 1860s through the 1880s due to the presence of Salado College and multiple social groups. In 1890, railroads bypassed Salado and the population began to decline. In the 1940s, the Stagecoach Inn was opened in a historic structure, beginning a period of revitalization for the Village of Salado (Silverthorne 2010). The present-day economy relies heavily on tourism, with events taking advantage of the towns natural and historic setting.

Running through Salado, the Chisholm Trail, in use from 1867 to 1884, was the most widely used cattle transport trail in Texas (Gard 1956; Worcester 2017). The trail, which did not follow an exact route and tended to vary in location from year to year, roughly ran from San Antonio through Austin, Waco, and Fort Worth, to the Red River Station and north. The locations of river crossings tended to be in dedicated locations, due to the difficulties inherent in moving up to several thousand head of cattle across a body of water (Worcester 2017). In the 1870s, the portion of the Chisholm Trail north of Belton shifted to the west, due to increasing amounts of fenced farmland and the shifting Kansas quarantine line to prevent the spread of Texas fever, a deadly cattle disease (Gard 1956). The Chisholm Trail ran through Salado, and the crossing at Salado Creek was located at the current location of the Main Street bridge (Barton 2018).

5.0 Historic Properties

5.1 Desktop Review

Review of the Restricted Texas Archeological Sites Atlas (Atlas) for the project area (16,500 linear feet) shows that a portion of the proposed alignment has been surveyed. Review of the survey report, however, would indicate that the portion of property containing the currently proposed water line was not part of the previous archaeological investigation. Abutting this previous survey to the west is a National Register of Historic Places (NRHP) and Recorded Texas Historic Landmark (RTHL) district, and along the remainder of the alignment, there are five more properties with the same dual-designation, five properties NRHP-listed only, one RTHL only, one NRHP-eligible archaeological site, one archaeological site, which has been determined ineligible for NRHP listing within the ROW, and numerous historical subject markers. These resources are summarized in Table 1.

According to site records for 41BL242, the multicomponent (i.e., Paleoindian to Historical Periods) archaeological site is stratified to depths of 15 feet. The physical geography of Salado Creek would likely limit these deeper deposits to portions of the site in near-channel settings, but no further information is readily available for the site.

According to site records for 41BL1105, the prehistoric-age site contains lithic debris and burned rock scatters, which have been heavily disturbed by road construction; the site has been determined ineligible within the ROW for NRHP listing by the THC.

Table 1. Recorded cultural resources in and adjacent to APE.

Name	Description (Marker Number)	Designation
Berry-Vickry House	House at 680 N. Main St.	RTHL/NRHP
Capt. Robert Bonner Halley	House at 681 N. Main St.	RTHL/NRHP
Home of Wellborn Barton	Subject marker on N. Main St.	none
Armstrong-Adams House	House at 2 N. Main St.	RTHL/NRHP
Old Anderson Place (Anderson House and Store)	House at 35 Main St.	RTHL/NRHP
Home of Orville Thomas Tyler	Subject marker and NRHP property on S. Main St.	NRHP
Norton-Orgain House	House on Main St.	NRHP
Louisa Adeline (Addie) Barton historical marker	Subject marker at 210 S. Main St.	none
Davis Mill	Subject marker on S. Main St. at Salado Creek	none
Davis House	House on S. Main St.	NRHP
First Baptist Church of Salado historical marker	210 S. Main St.	none
Barbee-Berry Mercantile Building	Building at Main St. and Royal St.	NRHP
Stagecoach Inn	401 S. Stagecoach Rd. (marker at Main St. and College Hill Rd.)	RTHL
George Washington Baines House	House on Royal St.	NRHP
Major A.J. Rose House	House on Royal St. at Rose Way	RTHL/NRHP
Salado United Methodist Church	Building on Church St.	NRHP
West Salado Cemetery	Subject marker on West Village Rd.	none
41BL242	Multicomponent stratified archaeological site	NRHP-eligible
41BL1105	Prehistoric-age archaeological site	Ineligible for NRHP
Alice Gray Hamblin historical marker	Subject marker at 601 N. Main St.	none
Dodd's Creek Bridge historical marker	Subject marker on N. Main St.	none
Main Street Bridges historical marker	Subject marker on N. Main St.	none
Salado Creek historical marker	Subject marker on N. Main St.	none

6.0 Intensive Survey

6.1 Survey Methods

Considering that much of the proposed wastewater alignment traverses previously disturbed road right-of-way, archaeological investigations focused on relatively undisturbed locations where deep impacts are anticipated. To explore the possibility of the APE containing buried cultural resources in the vicinity of Salado Creek (near 41BL242) and Campbell Branch, as well as an unnamed tributary of Salado Creek, six backhoe trenches were originally proposed; one backhoe trench was estimated for bore and receiving pits as well as the lift stations. Reconnaissance of the locations, however, revealed limitations and previous disturbances, and therefore, three trenches were determined not to be useful and their excavation abandoned. The west side of the boring beneath IH 35 is currently on a private residential lot with a high degree of surface visibility in an upland setting (Appendix B, Photo 1). Similarly, the lift station on Church Street is a former residential lot in an upland setting. Upon inspection, the north side of Salado Creek is clearly disturbed by the development of the current First Baptist Church facility and previous utility line

(i.e., water) installation, and bedrock exposed at the surface in the general area suggests that there is relatively little sediment to excavate (Appendix B, Photos 2 and 3). In the remaining three locations, trenches were excavated to deposits that are not capable of containing intact cultural material (i.e., Pleistocene and/or channel deposits).

In plan view, trenches were approximately 4.5 meters in length, 1-1.25 meters wide, and up to 1.7 meters deep. Excavation of trenches was closely monitored by a professional archaeologist, and samples from arbitrary 50-centimeter levels were passed through ¼-inch hardware mesh. Upon completion of excavation, the archaeologist recorded the trench profile exposure and took notes of cultural material encountered. Trenches were backfilled once documentation was completed.

Approximately 700 meters of proposed alignment, stretching from Royal Street through undeveloped land to the previously surveyed wastewater treatment plant location, were subjected to intensive pedestrian survey. Minimum Survey Standards require that surveys of this size and nature be systematically investigated through 100 percent visual inspection along transects spaced no farther apart than 30 meters. Four shovel tests into shallow sediment explored the alignment for buried archaeological deposits. Shovel tests were excavated in arbitrary 20-centimeter levels where deep enough, and excavated sediment was passed through ¼-inch hardware mesh. Shovel tests were recorded through field notes, photography, and hand-held geographic positioning system (GPS) device.

6.1.1 Evaluation Criteria

Once identified, cultural resources are evaluated for their importance or significance under federal and state law. For a cultural resource to be deemed eligible for inclusion in the NRHP, the resource must be at least 50 years old and must possess significance and integrity. The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location design, setting, materials, workmanship, feeling, and association and:

a. That are associated with the events that have made a significant contribution to the broad patterns of our history; or
b. That are associated with the lives of persons significant in our past; or
c. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
d. That have yielded, or may likely to yield, information important in our prehistory or history (36 CFR 60.4).

Additionally, the State of Texas affords important cultural resources a level of protection beyond that of NRHP status if the resource meets the criteria for listing as a State Antiquities Landmark (SAL). SAL criteria are divided into four categories based on the type of resource: archaeological site (13 TAC 26.10), shipwreck (13 TAC 26.11), cache and collection (13 TAC 26.12), and historic structure (13 TAC 26.19). Under each category is a short list of eligibility requirements that mirror

NRHP criteria with a few notable inclusions; the concept of integrity is explicitly built into the criteria for archaeological sites and historical structures, potential looting and vandalism is considered for archaeological sites, and historic structures must already be listed on the NRHP.

6.2 Survey Results

While three of the initial six backhoe trenches were discounted due to environmental factors (i.e., shallow soils, surface visibility, etc.), the three excavated backhoe trenches yielded similarly shallow and disturbed results. Archaeological remains were encountered in Backhoe Trench (BHT) 1, and limited materials were observed in BHTs 2 and 3, but the four shovel test excavations were devoid of artifacts.

6.2.1 Backhoe Trench 1

Focusing on the deposits in the footprint of the bore pit on the south side of Salado Creek, BHT 1 was excavated approximately 20 meters south of the channel and approximately 10 meters west of Main Street in a maintained park setting (Appendix A, Exhibit 2). The trench measured approximately five meters long, one meter wide, and one and a half meters deep (Appendix B, Photo 4). Surface visibility was relatively good in the area, but no artifacts were observed in the park; beneath the Main Street bridge, which is a historic-age structure, was a large chert cobble that appeared battered and possibly flaked (Appendix B, Photo 5). The cobble's context, however, did not lend itself to archaeological interpretation.

The excavation of BHT 1 yielded historic and prehistoric artifacts, as well as supplemental information about the physical and historical geography of the location. In the upper 50 centimeters, between approximately 15 centimeters and 55 centimeters in depth, one small marble fragment, one small sherd of stoneware, one colorless bottle glass fragment, three small bivalve shell fragments, and 11 pieces of chert were recovered from one large backhoe bucket load of excavated sediment (Appendix B, Photo 6). The chert artifacts were a mixture of angular chunks and few, small flake fragments. A small heat spall or cherty pebble was recovered from a backhoe bucket representing approximately 50 to 100 centimeters below surface, and an angular cherty pebble was recovered from a bucket representing 100 centimeters to depth (see Appendix B, Photo 6).

The profile exposure of BHT 1 consisted of a dark grayish brown gravelly loam modern surface on top of relatively finer textured dark grayish brown loamy clay with abundant krotovina and worm casts (Appendix B, Photo 7). Within the second zone, which extends to approximately 50 centimeters below surface, is a gravelly lens in which a single colorless glass sherd was observed. Beneath the second zone was another relatively thin gravelly zone, composed of slightly coarser grain clasts, that stretched the length of the trench. Below this gravel bed was very dark grayish brown loam, which contained a single, small angular cherty pebble, above brown clay. At the bottom of the trench, another gravelly zone with calcium carbonate nodules was observed directly atop limestone bedrock (Appendix B, Photo 8).

The gravelly zone spanning the trench represents a disconformity and suggests truncation of an earlier soil, the remainder of which still rests on bedrock in the lower half of the trench profile. The lack of a well-formed calcic or rubified "B" horizon (i.e., carbonate coats, cementing, reddening,

etc.) suggests that the older soil unit likely represents the Holocene (and probably the latter portion thereof). In general, artifacts were recovered from the soil unit above the gravelly disconformity. Without observing substantial artifacts in situ, it is difficult to talk about the integrity of their context. Hints of integrity may be deduced, however, from soil characteristics; the general lack of "B" horizon development in the upper unit suggests that it is relatively young, and the darkness of the upper unit would suggest that it is reworked topsoil. While the adjacent stream would likely contribute such deposits, the location was situated at the bottom of the relatively gentle slope leading down to the modern channel. Additionally, development of a hotel and parking lot upslope, as well as a pond upstream, could also have contributed soil to the location.

6.2.2 Backhoe Trench 2

BHT 2 was excavated in the footprint of the lift station on Royal Street approximately 150 meters east of the intersection with Main Street (see Appendix A, Exhibit 2). Because of limitations imposed by landownership, the lift station is proposed to be placed within existing ROW, and the trench was, therefore, placed approximately five meters south of Royal Street and seven meters east of a sensitive property line. The trench was excavated to approximately 75 centimeters in depth, and was approximately one meter wide and five meters long.

Approximately 40 centimeters below the modern surface, the top of a relatively large end cap on a 12-14-inch wastewater line was encountered (Appendix B, Photo 9). As utilities were marked ahead of excavations and none were marked at the location, encountering the existing line was unexpected. Village of Salado staff on site at the time also indicated no previous knowledge of the line at the location. After careful excavation around the line using shovels and trowels, we observed that the larger line to the west was capped and a smaller line, approximately two inches in diameter, continued east for an unknown distance.

Aside from some slight organic enrichment of the upper approximately 15 centimeters, the sediment encountered was homogenously strong brown clay with common stones and carbonate nodules (Appendix B, Photo 10). Considering the existing pipeline, much of the soil, if not all encountered in the trench, was previously disturbed. One angular cherty cobble, one flake fragment, and two brown bottle glass fragments were identified among the backfill; modern debris including fibrous pipe insulation and plastic was also observed (Appendix B, Photo 11).

6.2.3 Backhoe Trench 3

In the footprint of the receiving pit on the north side of Rock Creek, just east of the IH 35 northbound frontage road, BHT 3 was excavated into shallow, stony and partly disturbed deposits (see Appendix A, Exhibit 2). The trench was situated approximately 10 meters east of a relatively large drainage culvert, five meters north of Rock Creek, and five meters south of a small commercial building (Appendix B, Photo 12). The trench measured approximately five meters long, one meter wide, and three-quarters of a meter deep, and it was located approximately one to two meters above the adjacent, bedrock-lined channel.

The upper approximately 20 centimeters of the sediment profile consisted of very pale brown, gravelly construction fill, and from approximately 20 centimeters to depth was brown (very) stony clay with abundant chert and limestone cobbles (Appendix B, Photo 13). The rocks rested directly on top of weathered limestone bedrock. A single fragment of colorless bottle glass was

encountered near the transition of construction fill and native soil, but no other artifacts were observed in screens or *in situ*.

6.2.4 Intensive Pedestrian Survey

The approximately 700 meters of proposed alignment that veers from existing ROW and traverses ranchland was subjected to intensive pedestrian survey including four shovel test excavations (see Appendix A, Exhibit 2). Four transects were used to inspect the approximately 30-foot wide easement. Ground cover consists primarily of knee-high bunch grasses, which provided a relatively high degree of surface visibility. Approximately 550 to 600 meters of this eastern leg of the wastewater line are located in an upland environment, whereas the final approximately 100 meters or so descend to and across Smith Branch Creek (Appendix B, Photo 14). In the upland setting and transitioning downslope, shallow soils veil bedrock with up to approximately 20 centimeters of cobbly grayish brown clay (Shovel Tests 01 through 03) (Appendix B, Photo 15). Shovel Test number 04, which examined a rise or terrace above the stream channel was considerably deeper but still encountered limestone cobbles at approximately 35 centimeters below surface. A cutbank exposure at the stream crossing revealed a profile consisting of a relatively shallow topsoil above gravelly channel deposits directly atop bedrock (Appendix B, Photo 16). Overall, pedestrian survey of the eastern end of the alignment yielded no artifact sightings.

Across Smith Branch, an area that had previously been intensively surveyed, the modern ground surface appeared extensively disturbed (Appendix B, Photo 17). Much of the wastewater treatment station footprint was what appeared to be an enclosed (or mostly enclosed) shallow basin currently used for dumping (Appendix B, Photo 18). Shallow slopes and pedestals along the edges of the basin showed a sediment profile similar to that of shovel test 04—relatively thin topsoil above cobbly subsoil. Backhoe Trenches 2 and 3 from the previous archaeological investigation (Young 2011) explored the subsurface approximately 30 meters south of the current alignment and yielded similar results.

7.0 Construction Monitoring

7.1 Monitoring Methods

An interim letter report detailing the above survey results was sent to the THC in August 2016; monitoring was recommended in the areas of BHT 1 and BHT 2. In September 2016, the THC concurred with the recommendation for monitoring in these two locations.

Construction schedules were coordinated between Terracon, the Village of Salado, KPA, and the construction subcontractors. Monitoring was conducted on April 24, 25, 26, and September 21 and 27, 2018. David Yelacic, Caitlin Gulihur, and Juan Morlock were present on varying days for construction monitoring. Construction activities were monitored on the south and north banks of Salado Creek and in the area of the Royal Street Lift Station (Appendix A, Exhibit 3). The excavation of sediment down to bedrock was supervised by one to two archaeologists and select samples of excavated sediment was troweled through for cultural materials. Profiles of the water line trench were inspected and photographed. If sensitive cultural materials or remains were

encountered, archaeologists on site would stop construction activities to document the find. Cultural materials observed in the field would be photographed, but not collected.

7.2 Monitoring Results

The southern bank of Salado Creek, in the location of 41BL1401, was monitored on April 24 and 25, 2018, while the northern bank was monitored on April 26, 2018 (see Appendix A, Exhibit 3). On the southern bank, 3 to 4.5 feet of dark sediment above limestone bedrock was present; on the northern bank, up to a foot of sediment above bedrock was present. Cultural materials were observed at a low density during the excavation of the trench for the wastewater line. Historic-age and prehistoric cultural materials were present. Large amounts of natural chert cobbles were present; prehistoric lithics included tertiary flakes, cores, and a large biface/bifacial core were observed (Appendix B, Photo 19). Historic-age artifacts included glass containers and fragments and metal fragments. Glass fragments were generally brown, light green, dark green, or colorless (Appendix B, Photo 20). One clear glass container base contained a possible “I” in “O” maker’s mark (Owens-Illinois Glass Co. 1954-present) (Lockhart and Hoenig 2015) (Appendix B, Photo 21). An intact light green bottle was observed with “WASH” and either “OC” or “CC” on the base (Appendix B, Photo 22). One light green Coca-Cola bottle was observed; basal marks included “LUFKIN” “TX” and “L” (Appendix B, Photo 23). This bottle was the only cultural material observed on the northern bank of Salado Creek. Metal artifacts included a horseshoe, a metal pull tab, Lone Star Beer screw top lid, and a pull tab Dr. Pepper can (Appendix B, Photo 24). Unidentifiable metal fragments were also observed. No features were observed during monitoring in the vicinity of Salado Creek.

The Royal Street Lift Station location was monitored on September 21 and 27, 2018, located approximately 750 feet southeast of the previous monitoring location (see Appendix A, Exhibit 3). Work on September 21st consisted of the removal of trees from the site area, prior to the excavation of a large pit for the lift station (Appendix B, Photo 25). On September 27, Terracon’s archaeologist observed the excavation of the pit. Ground disturbance around the pit was also observed and consisted of creating a widened shelf around the outside of the pit (Appendix B, Photo 26). Deposits of the upper 1-3 feet mainly consisted of grey-brown sediment with limestone inclusions and modern trash as deep as 5-7 feet (Appendix B, Photo 27). Soil from around the trees near surface was much darker than red-brown soil below with some calcium carbonate bedrock fragments interspersed. A layer of inconsistently sized oblong bedrock chunks was observed approximately 2.5 feet below ground surface, and dark soil and metal fragments underneath (Appendix B, Photo 28). Light tan colored dirt underlaid the previously mentioned layers with the appearance of greyish white soil below at approximately 12-15ft (Appendix B, Photo 29). Excavations hit solid bedrock around 18-feet below surface and continued to roughly 20-feet below surface (Appendix B, Photo 30). Overall, very limited cultural materials were observed during monitoring in this location. No features were observed during monitoring of the Royal Street Lift Station.

8.0 Site 41BL1401

Recorded south of Salado Creek, 41BL1401 consists of prehistoric-age lithics and a light scatter of historic-age materials. No surface expression of the site was present, and buried materials were generally restricted to the top 100 centimeters below ground surface. The east and west boundaries of the site are based on the project boundary; the site likely extends outside of the project APE. Observed lithics included tertiary flakes, cores, and a large biface/bifacial core (see Appendix B, Photos 6 and 19). Prehistoric-age materials occurred at a low density, with less than 50 artifacts observed during both backhoe trenching and construction monitoring. A low-density scatter of historic-age materials was also noted. These materials included glass bottle fragments, a marble, a small sherd of stoneware, and metal artifacts. Glass fragments were generally brown, light green, dark green, or colorless. One clear glass container base contained a possible “I” in “O” maker’s mark (Owens-Illinois Glass Co. 1954-present) (Lockhart and Hoenig 2015) (see Appendix B, Photo 21). An intact light green bottle was observed with “WASH” and either “OC” or “CC” on the base (see Appendix B, Photo 22). Metal artifacts included a horseshoe, a metal pull tab, Lone Star Beer screw top lid, and a pull tab Dr. Pepper can (see Appendix B, Photo 24). Unidentifiable metal fragments were also observed. These historic-age materials are thought to have been washed in during periodic flooding of Salado Creek and/or the long use of the area as a public park. No historic-age or prehistoric-age features were observing during survey or monitoring at 41BL1401.

9.0 Conclusions and Recommendations

Construction of the proposed approximately 16,500 linear feet of utility lines throughout central Salado will be funded with assistance from the Economic Development Administration and will utilize publicly owned ROW and easements. Therefore, the proposed undertaking has obligations to comply with provisions of Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas. In coordination with staff from the THC, the study area was focused down to archaeologically sensitive areas, areas with deep impacts, and a previously unsurveyed (and undisturbed) portion of alignment to the east. These areas were the focus of the current archaeological investigations.

The APE of the proposed alignment runs through the historical center of the Village of Salado, and multiple historic properties and historic resources, including buildings and bridges, are situated alongside the proposed alignment. As the proposed construction would take place within existing right-of-way, with construction designed not to impact bridges over Salado Creek and Rock Creek, and as the ultimate condition of the buried line would have no lasting impacts on viewsheds of the historic properties and above-ground historic resources, it is Terracon’s opinion that there would be no adverse effects on historic properties, as currently proposed.

As for archaeological investigations in targeted areas along the linear APE, observations over the course of archaeological survey revealed that soils across the APE form a thin veneer across the limestone bedrock. In the vicinity of Salado Creek, these soils appear to have been washed out

by periodic flooding—the creek flows over a limestone channel, and the adjacent banks have limestone bedrock near the surface. In the modern floodplain at BHT 1, historical/modern artifacts were encountered along with artifacts from prehistoric people. No temporally diagnostic or other stone tools were observed. Much of what was encountered could be classified as lithic debitage, or the debris created in the knapping process. Though one small piece of chert was observed in the trench profile, none of the prehistoric or historic artifacts came from convincingly primary context. Nonetheless, these materials signify the presence of human behaviors in and around the APE, and they should, therefore, be included in an archaeological site designation. Thus, site 41BL1401, represents a scatter of prehistoric lithic material and historic-age materials representing the long use of the area as a public park in the southern floodplain of Salado Creek. While construction monitoring identified more artifacts at site 41BL1401, no intact features or discrete cultural deposits were observed at the site within the project right-of-way (ROW). No other substantial artifacts, artifact assemblages, or features were observed. Based on the portion of the site within the current project ROW, there is no evidence that the site is tied to persons or events important in history or prehistory, so it is not eligible for NRHP listing under Criteria A and B. There are no standing structures at the site, so it is not eligible under Criteria C. Given the low density of materials and the lack of deposits in a primary context, it is unlikely the site has the potential to contain data important to history or prehistory; therefore, the portion of 41BL1401 that is located within the project ROW is not eligible under Criteria D. In addition, the portion of the site within the project ROW does not meet the criteria to be listed as a State Antiquities Landmark (SAL).

As identified by the THC archaeological reviewers, archaeological monitoring of portions of the proposed project would be necessary during construction. While 41BL1401 did not yield significant archaeological data during survey, it would appear that the lower soil unit could potentially contain intact archaeological material, however sparse. Additionally, because of the wastewater line encountered at BHT 2, undisturbed deposits beneath approximately one meter, should they exist and represent archaeologically relevant time periods, were not inspected. Therefore, these areas were monitored during construction. Limited cultural materials were observed at both locations in the form of artifacts but no distinct cultural features or isolable deposits were encountered during the monitoring.

In the unlikely event that human remains or intact cultural resources are discovered during remaining construction activities, those activities should cease in the vicinity of the discovery and Terracon, the Texas Historical Commission’s Archeology Division, or other proper authorities should be contacted.

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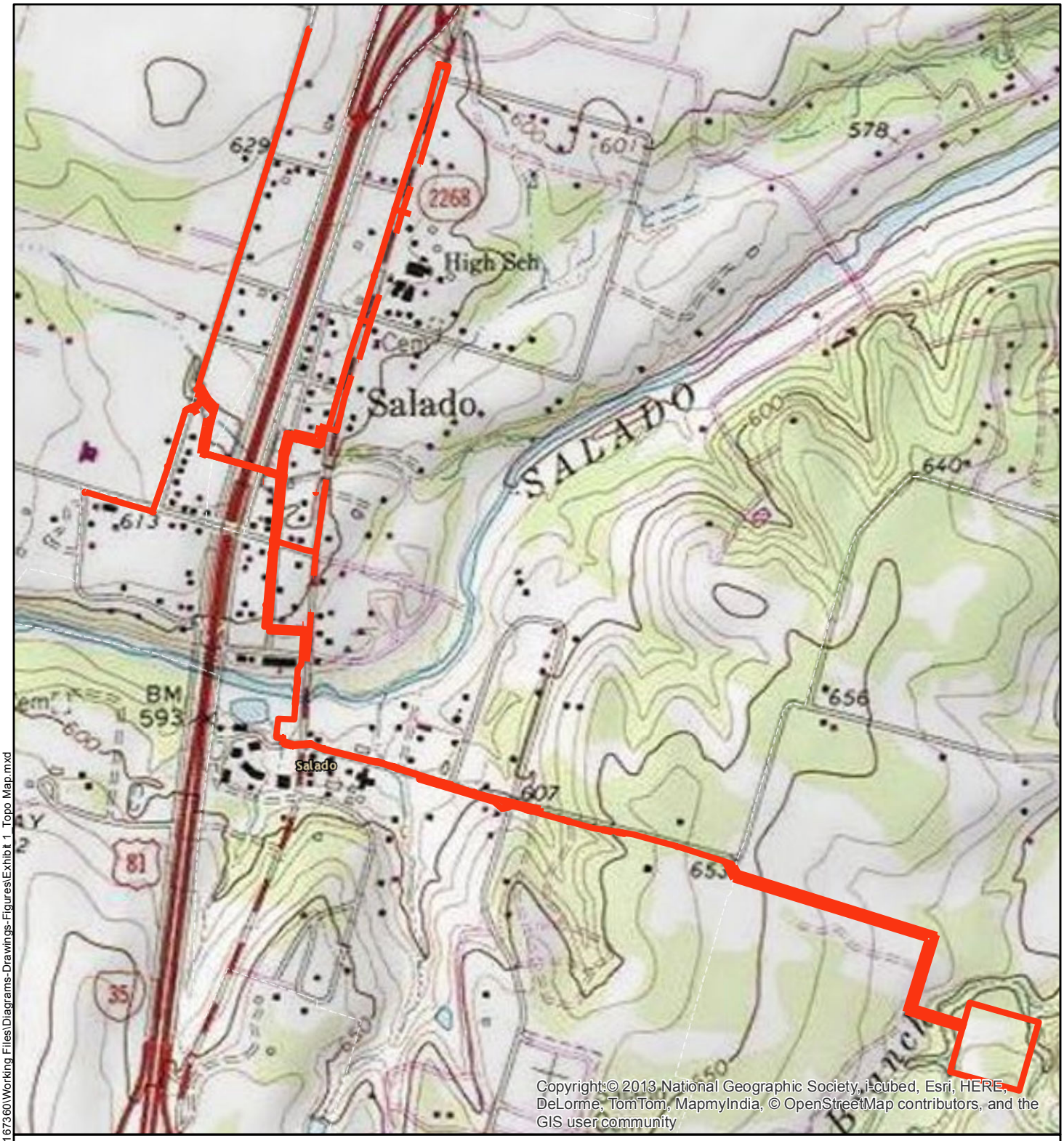
APPENDIX A
Exhibits



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Legend

APE

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Project Mngr: DMY	Project No. 90167360
Drawn By: DMY	Scale: 1 in = 1,000 ft
Checked By: JEH	TBPE Firm No. F-3272
Approved By: JEH	Date: August 2015

Terracon
Consulting Engineers & Scientists
6911 Blanco Road San Antonio, TX 78216
PH (210) 641-2112 Fax (210) 641-2124

APE on USGS Topographic Map

Salado Wastewater Line Project
W Village Rd, Church St, Main St, Royal St
Salado, Bell County, Texas

Exhibit

1

Page removed to protect site location

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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APE

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Project Mngr:	DMY
Drawn By:	DMY
Checked By:	JEH
Approved By:	JEH

Project No.	90167360
Scale:	1 in = 1,000 ft
TBPE Firm No.	F-3272
Date:	August 2015

Terracon
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6911 Blanco Road San Antonio, TX 78216
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Monitoring Locations

Salado Wastewater Line Project
W Village Rd, Church St, Main St, Royal St
Salado, Bell County, Texas

Exhibit

3

APPENDIX B
Photo Log

Project Name: Salado Wastewater Line Project
Project No. 90167360
Photos Taken: August 5 and 8, 2016; April 24-26, 2018; September 21 and 27, 2018

Photo #1: View east across residential lot towards treeline on the opposite side of IH 35.

Photo #2: Looking south along Main St. on west side of bridge. Bedrock is exposed at the surface in midground and waterline marking is in foreground.

Project Name: Salado Wastewater Line Project
Project No. 90167360
Photos Taken: August 5 and 8, 2016; April 24-26, 2018; September 21 and 27, 2018

Photo #3: View north across Salado Creek on the west side of the Main St. bridge.

Photo #4: Completion of BHT 1 excavation. Note sample piles on the left side of photo and undivided backfill on the right side.

Project Name: Salado Wastewater Line Project
Project No. 90167360
Photos Taken: August 5 and 8, 2016; April 24-26, 2018; September 21 and 27, 2018

Photo #5: Big cherty cobble found beneath Main St. bridge near BHT 1.

Photo #6: Artifacts recovered from sample piles. The collection of chert, glass, ceramic, marble, and shell on the left side of the picture are from approximately 0-50 cm below surface. The pieces of chert on the right side are from 50-100 cm (upper) and 100 cm to depth (lower). Site 41BL1401.

Project Name: Salado Wastewater Line Project
Project No. 90167360
Photos Taken: August 5 and 8, 2016; April 24-26, 2018; September 21 and 27, 2018

Photo #7: Eastern trench wall profile of BHT 1.

Photo #8: Zoomed in picture of sediment meeting bedrock at the bottom of BHT 1.

Photo #9: Relatively large existing wastewater line exposed in BHT 2.

Photo #10: South trench wall exposure from BHT 2. (Exposed utility line out of frame to the right.)

Photo #11: View of flake fragment and brown glass shards recovered from backfill of BHT 2.

Photo #12: BHT 3 at beginning of excavation. Note excavated sediment in the midground between the two pole in the foreground.

Project Name: Salado Wastewater Line Project
Project No. 90167360
Photos Taken: August 5 and 8, 2016; April 24-26, 2018; September 21 and 27, 2018

Photo #13: North trench profile exposure from BHT 3.

Photo #14: Exposed weathered bedrocks at the surface near the transition from upland to descent to Smith Branch near the eastern end of the proposed alignment.

Photo #15: Shallowly buried bedrock from Shovel Test 01.

Photo #16: Smith Branch cutbank profile exposure in the vicinity of the proposed alignment crossing.

Photo #17: Vicinity of previously surveyed wastewater treatment plant. Note the woody vegetation in the midground that appears to sit on a pedestal above the shallow basin.

Photo #18: Gentle slope towards modern dumping in the shallow basin. The slope exposes shallowly buried weather limestone bedrock/cobbles.

Photo #19: Prehistoric lithics from monitoring on south side of Salado Creek; site 41BL1401.

Photo #20: Glass fragments from monitoring on south side of Salado Creek; site 41BL1401.

Photo #21: Clear glass bottle base from monitoring on south side of Salado Creek. Note possible "I" in "O" maker's mark in upper central portion of base. Site 41BL1401.

Photo #22: Intact green bottle from monitoring on south side of Salado Creek. Site 41BL1401.

Photo #23: Base of Coca-Cola bottle from monitoring on north side of Salado Creek.

Photo #24: Metal artifacts from monitoring on south side of Salado Creek. Site 41BL1401.

Photo #25: Tree removal while monitoring for Royal Street lift station.

Photo #26: Monitoring excavation of pit at Royal Street lift station.

Photo #27: Soil profile observed while monitoring excavation at Royal Street lift station.

Photo #28: Bedrock chunks observed while monitoring excavation at Royal Street lift station.

Photo #29: Soil profile at Royal Street lift station.

Photo #30: Excavation to bedrock at Royal Street lift station.